REMARKS/ARGUMENTS

35 USC § 112

Claims 17, and 19-25 were rejected under 35 USC § 112 as lacking enabling support. More specifically, the Examiner argues that while specific embodiments of claim 1 would be supported, other embodiments (*e.g., in vivo* inhibition of CD-28 expression) would not be enablingly supported. The applicant disagrees, nevertheless has amended claim 17 (and 19-25 by virtue of their dependence on amended claim 17) to advance prosecution of the present matter.

35 USC § 102

Claims 1-4, and 6-10 were rejected under 35 USC § 102(b) as being anticipated by Schultze et al. (Structure (1994) 2, 221-233). The applicant disagrees, nevertheless has amended claim 1 to advance prosecution of the present matter.

Among other elements, amended claim 1, claims 2-4, and claims 6-10 by virtue of their dependence on amended claim 1 expressly require that the aptamer has a "...length of between about **13 and 22 nucleic acid units**, inclusive...", "...wherein the **nucleic acid units** in the aptamer **and the at least two G-rich regions** are **selected such that the aptamer reduces CD28 expression** in an activated human T-cell...".

These elements are clearly not taught by Schultze et al. The only oligo in the Schultze reference has a **length of 12 nucleic acid units having telomer-associated function**, which is entirely inconsistent with the sequence and function as presently claimed. It should be noted that where nucleic acid sequences have an ambiguous sequence (*e.g.*, certain percentage identity with a specific reference sequence, or incorporating one or more undefined nucleobases), it is **well established/recognized practice to describe the sequence in terms of its specific function** (*e.g.*, hybridization or binding to a binding partner that is defined [US5698442], or effecting a particular biological function that is defined [US6271440, or 6174869]). Therefore, the element "...aptamer reduces CD28 expression in an activated human T-cell..." should be given proper patentable weight. Consequently, claims 1-4 and 6-10 are not anticipated by Schultze et al.

Claims 1-4, and 6-10 were further rejected under 35 USC § 102(b) as being anticipated by Kuramoto et al. (Jpn. J. Caner Res. (1992) 83, 1128-1131). The applicant disagrees for various reasons.

First, **all of Kuramoto's sequences have a length of 30 nucleotides**, thus clearly falling outside the scope of the presently pending claims. Second, Kuramoto's oligonucleotides are described as having NK-cell enhancing activity, which further teaches away, if not even against the subject matter as presently claimed. Consequently, claims 1-4 and 6-10 are not anticipated by Kuramoto et al.

Allowable Subject Matter

The applicant acknowledges the Examiner's statement of allowability of claims 11-16.

REQUEST FOR ALLOWANCE

Claims 1-4, 6-17, and 19-25 are pending in this application. The applicant requests allowance of all pending claims.

Respectfully submitted,
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